

# Unit Planning Guide: Grade 1 Unit 1 of 4

<b>Unit Title: Number Sense</b>	<b>Pacing (Duration of Unit): 10 weeks</b>
<b>Grade: 1</b>	<b>Buffer Day(s): 2</b>

## Desired Results

### Transfer Goals (Priority practice standards in **bold**)

*Students will be able to independently use their learning to:*

- MP.1. **Make sense of problems and persevere in solving them.**
- MP.2. Reason abstractly and quantitatively.
- MP.3. Construct viable arguments and critique the reasoning of others.
- MP.4. Model with mathematics.
- MP.5. **Use appropriate tools strategically.**
- MP.6. **Attend to precision.**
- MP.7. Look for and make use of structure.
- MP.8. **Look for and express regularity in repeated reasoning.**

### Established Goals (2011 MA Curriculum Frameworks Standards Incorporating the Common Core State Standards)

#### Prerequisite Standards:

- K.CC.1: Count to 100 by ones and by tens.
- K.CC.2: Count forward beginning from a given number within the known sequence (instead of having to begin at 1).
- K.CC.3: Write numbers from 0 to 20. Represent a number of objects with a written numeral 0–20 (with 0 representing a count of no objects).
- K.CC.4: Understand the relationship between numbers and quantities; connect counting to cardinality.
  - K.CC.4a: When counting objects, say the number names in the standard order, pairing each object with one and only one number name and each number name with one and only one object.
  - K.CC.4b: Understand that the last number name said tells the number of objects counted. The number of objects is the same regardless of their arrangement or the order in which they were counted.
  - K.CC.4c: Understand that each successive number name refers to a quantity that is one larger.

#### WIDA for English Language Learners

Standard 1: ELLs **communicate** for **Social** and **Instructional** purposes within the school setting

Standard 3: ELLs **communicate** information, ideas and concepts necessary for academic success in the content area of **Mathematics**

In the lesson planning stage, teachers will need to differentiate lessons for ELLs. In order to accomplish this they will need: 1.) this curriculum map, 2.) a list of their ELLs and their proficiency levels, and 3.) appropriate language function expectations and scaffolds or

# Unit Planning Guide: Grade 1 Unit 1 of 4

## Standards (Priority Standards in **bold**):

- **1.NBT.1: Count to 120, starting at any number less than 120. In this range, read and write numerals and represent a number of objects with a written numeral.**
- **1.OA.3: Apply properties of operations as strategies to add and subtract. Examples: If  $8 + 3 = 11$  is known, then  $3 + 8 = 11$  is also known. (Commutative property of addition.) To add  $2 + 6 + 4$ , the second two numbers can be added to make a ten, so  $2 + 6 + 4 = 2 + 10 = 12$ . (Associative property of addition.)**
- 1.OA.4: Understand subtraction as an unknown-addend problem. For example, subtract  $10 - 8$  by finding the number that makes 10 when added to 8.
- 1.OA.5: Relate counting to addition and subtraction (e.g., by counting on 2 to add 2).
- **1.OA.6: Add and subtract within 20, demonstrating fluency for addition and subtraction within 10. Use mental strategies such as counting on; making ten (e.g.,  $8 + 6 = 8 + 2 + 4 = 10 + 4 = 14$ ); decomposing a number leading to a ten (e.g.,  $13 - 4 = 13 - 3 - 1 = 10 - 1 = 9$ ); using the relationship between addition and subtraction (e.g., knowing that  $8 + 4 = 12$ , one knows  $12 - 8 = 4$ ); and creating equivalent but easier or known sums (e.g., adding  $6 + 7$  by creating the known equivalent  $6 + 6 + 1 = 12 + 1 = 13$ ).**

supports.

## Meaning (\*Mostly assessed through Performance Tasks/Assessments)

**Big Ideas:** (Statements and concepts written in teacher friendly language which reflect the important [but not obvious] generalizations we want students to be able to arrive at. These are used by the teacher to focus daily instruction.)

- There are multiple ways of looking at and solving addition and subtraction, and each operation is related to other operations.
- Mathematics content and practices can be applied to solve problems.
- Relationships can be described and generalizations made for mathematical situations that have numbers or objects that repeat in predictable ways.
- Numbers can be used for different purposes, and numbers can be classified and represented in different ways.

**Essential Questions:** (Questions which frame ongoing and important inquiries about the big ideas. They are written for students and used in daily instruction to help engage students in meaningful thinking.)

- How are addition and subtraction related?
- How can counting patterns (such as counting by twos) help you solve problems?
- Why is 10 important? or Why is 10 a super number?
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# Unit Planning Guide: Grade 1 Unit 1 of 4

## Acquisition (\*Mostly assessed through traditional summative assessments)

**Knowledge:** Key basic concepts, facts, and key terms (written in phrases) students should be able to recall independently.

*Students will know ...*

- That there are fact families we can memorize to help us solve addition and subtraction problems. (Sums to 10)
- That the order of addends doesn't matter in an addition problem (i.e.  $8 + 2 = 10$  and  $2 + 8 = 10$ , i.e. Commutative property of addition)
- Strategies for decomposing numbers (i.e.  $13 - 4 = 9$  and  $13 - 3 - 1 = 9$ ) to solve addition and subtraction problems (Associative property)

**Key Academic Vocabulary:**

- Terms related to addition and subtraction (plus, more, less, counting on, count up, take away, minus, difference, compare, sum, addends, equal...)

**Skills:** The discrete skills and process students should be able to use independently.

*Students will be skilled at:*

- Counting on by ones, and then skip-count by more difficult sequences (by 2s, 5's, 10's), starting with any number less than 120 (by mid-year). (Apply)
- Reading and writing numerals to 120 (by mid-year). (Remember)
- Communicating their reasoning for solutions through verbal and written explanations as well as visuals and drawings. (Understand)
- Adding and subtracting up to 10 using a variety of methods and strategies. (Analyze)
- Adding and subtracting fluently to 20 (by mid-year). (Remember)
- Computing a missing addend in a subtraction problem. (Apply)
- Writing numbers and drawing pictures to represent quantities. (Understand)
- Making models to represent addition and subtraction problems. (Apply)
- Applying commutative and associative properties as strategies to add and subtract. (Apply)
- Counting on to add, and counting backwards to subtract. (Apply)

### Resource Suggestions: